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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,487	09/02/2004	Kazuhisa Senda	121036-0070	2843

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EXAMINER

O HERN, BRENT T

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,487

Applicant(s)

SENDA ET AL.

Examiner

Brent T. O'Hern

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. JAPAN 2002-291913.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 September 2006.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

The phrase "metal- or resin-integrated" in claims 1-13, line 1 of each claim is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "metal- or resin-integrated". It is unclear whether the applicant is referring to the gaskets being integrated without the coating or integrated after the coating has been applied. Furthermore, it is unclear if applicants intend to use another word such as coated, united, or something else in place of "integrated".

Since claims 2-13 depend directly or indirectly on claims 1-4, they also contain the indefinite limitations of claims 1-4. Clarification and/or correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farnam (US 4,463,704) in view of Kusakabe et al. (5,986,014).

Regarding claim 1, Farnam ('704) teaches a gasket (Abstract, line 2), which comprises a cured product layer (*Abstract, line 17 "cure the coating"*) and a metal plate or resin plate (*col. 3, line 26 "polymeric material", a resin*), the cured product layer being provided on at least one surface of the resin plate (*col. 8, lines 46-48 "applied to top and bottom surfaces" and Abstract, lines 4-5 and 17*), however, Farnam ('704) fails to teach of a composition comprising an acrylic polymer having at least one alkenyl group capable of undergoing hydrosilylation reaction, a hydrosilyl group-containing compound and a hydrosilylation catalyst as essential components.

However, Kusakabe ('014) teaches a composition comprising an acrylic polymer having at least one alkenyl group capable of undergoing hydrosilylation reaction (*col. 11, lines 43-45*), a hydrosilyl group-containing compound (*col. 11, line 46*) and a hydrosilylation catalyst as essential components (*col. 14, lines 49-50*) for the purpose of providing good depth curability without foaming (*col. 14, lines 47-50*).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicants' invention was made to substitute the composition of Farnam ('704) with the well known acrylic polymer as described above in order to provide gaskets with good depth curability without foaming as taught by Kusakabe ('014).

With respect claim 2, Farnam ('704) fails to teach a gasket wherein the component of the composition is a liquid acrylic polymer having a number average

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molecular weight M_n of 500 or more and a molecular weight distribution (M_w/M_n) of 1.8 or less.

However, Kusakabe ('014) teaches a gasket wherein the component of the composition is a liquid acrylic polymer having a number average molecular weight M_n of 500 or more (*col. 11, lines 49-50 wherein the M_w is from 500 to 50,000 and col. 3 lines 64-65 wherein $M_w/M_n = 1.1 - 1.5$, thus making M_n from 333 to 45,455*) and a molecular weight distribution (M_w/M_n) of 1.8 or less (*col. 3, lines 64-65*) for the purpose of providing sufficient physical properties and not too viscous (*col. 11, lines 52-57*).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicants' invention was made to substitute Farnam ('704) with the well known acrylic polymer with M_n and M_w/M_n as taught by Kusakabe ('014) in order to provide a polymer that has sufficient physical properties and not too viscous.

With respect claim 3, Farnam ('704) teaches a gasket wherein the cured product layer has a film thickness of 1-500 μm (*col. 3, lines 44-47 "any desired thickness" and col. 9, lines 18-21, 0.0005 – 0.005 in. which equals 12.7 – 127 μm*).

With respect claim 5, Farnam ('704) teaches a gasket wherein the composition is directly applied to an adhesive-coated metal plate or resin plate (*col. 8, lines 46-48 "adhesive coatings" and "applied to the top and bottom surfaces of the gasket part" and Abstract, lines 4-5 "coated with a liquid dispersion of polymer or polymers"*) and cured (*Abstract, line 17, "cure the coating"*).

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With respect claims 6, 8 and 9, Farnam ('704) teaches a gasket which comprises at least one of an automobile engine cylinder head gasket, an engine oil pan gasket and an engine intake-exhaust manifold gasket (*col. 1, lines 30-35 "pan gasket"*).

4. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farnam (US 4,463,704) in view of Kusakabe et al. (5,986,014) and DeCato et al. (US 6,444,740).

Regarding claims 4 and 10, Farnam ('704) and Kusakabe ('014) teach the gasket as described above.

With respect claim 4, Farnam ('704) and Kusakabe ('014) fail to teach a gasket wherein the cured product layer has a surface hardness of 45 or less. However, DeCato ('740) teaches the cured product layer's surface hardness can vary depending on the additives (*col. 5, lines 46-51*). Furthermore, DeCato ('740) teaches the claimed surface hardness of 45 or less (*col. 15, Table 7a, "Comp. 5"*).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicants' invention was made to modify the cured product of surface hardness of Farnam ('704) and Kusakabe ('014) since DeCato ('740) teaches that silicone compositions include a plasticizer when it is desirable for the specific surface hardness of the cured product layer depending on the desired surface hardness. Furthermore, DeCato ('740) teaches the claimed surface hardness of the cured product layer of 45 or less.

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With respect claim 10, Farnam ('704) teaches a gasket which comprises at least one of an automobile engine cylinder head gasket, an engine oil pan gasket and an engine intake-exhaust manifold gasket (*col. 1, lines 30-35 "pan gasket"*).

5. Claims 7 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farnam (US 4,463,704) in view of Kusakabe et al. (5,986,014), DeCato et al. (6,444,740) and Kawamura (US 5,684,110).

Farnam ('704), Kusakabe ('014) and DeCato ('740) teach the gasket as described above. However, they fail to expressly teach a gasket wherein the cured product is provided on a resin plate that has a softening point of 100 °C or more.

Kawamura ('110) teaches resins that have a softening point of 100 °C or more (*col. 6, lines 52-55 "softening point from 5 °C to 200 °C"*) for the purpose of providing a gasket to undergo a very slow cure (*col. 6, lines 3-4*) for having acceptable storage stability (*col. 6, lines 41-42*).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicants' invention was made to provide a resin plate of Farnam ('704), Kusakabe ('014) and DeCato ('740) with a softening point of 100 °C or more as taught by Kawamura ('110) in order to provide a gasket having acceptable storage stability as described above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571) 272-0496. The examiner can normally be reached on M-F, 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Howard Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTO

Brent T O'Hern
Examiner
Art Unit 1772

February 16, 2006


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

2/16/08